



*More meat, milk and eggs by and for the poor*

## TANZANIA PRIORITY COUNTRY PROGRAM

# Maziwa Zaidi (MoreMilk) program in Tanzania Phase II (2019-2021) core project



*Photo credit: ILRI/Paul Karaimu*

## ABOUT MZ PHASE I (2012-2018)

Implemented under the CGIAR Research Program on Livestock and Fish, MZ Phase I tested multi-stakeholder processes (hubs and innovation platforms). The focus was on establishing market linkages targeting farmer groups as an entry point to overcome market barriers, increase participation, improve revenue/income and livelihoods. It mainly targeted pre-commercial marginalized cattle keeping men and women in Tanga and Morogoro regions.

For more information, visit <https://maziwazaidi.org/publications/>

## Lessons learned in phase I

- The hubs were found useful for intended purposes and progress towards sustainability.
- Linkages starting with farmer groups are slow in terms of process and it's quicker to start with agripreneurs, who are service providers.
- Skills training has proven effective and would scale-up by focusing more on personal self-starting entrepreneurial initiatives as well as future-oriented and proactive mindsets.

## AGRI-ENTREPRENEURSHIP, TECHNOLOGY UPTAKE AND INCLUSIVE DAIRY DEVELOPMENT IN TANZANIA

Dairying is widely recognized as one of the most promising agricultural pathways towards prosperity. Growing out of the smallholder dairy research for development activities developed under the first phase of Maziwa Zaidi (MZ) program: <https://maziwazaidi.org/projects/>. The proposed intervention for MZ Phase II (2019-2021) is centred around a catalytic core project titled "Agri-entrepreneurship, technology uptake and inclusive dairy development in Tanzania". The project aims to catalyze uptake of "proven" dairy technology packages that improve the livelihoods of smallholder farmers. It will do so by consolidating previous research to date and translating it into an integrated package of pilot interventions. The pilot interventions will generate the evidence needed to attract public and private development investment to take them to scale. The core project will work closely with other research and development projects in the target sites such as the ILRI-led project of the Africa Dairy Genetics Gain (ADGG) and agribusiness development projects led by partners.

## VISION AND OBJECTIVES

Phase II envisions that investors replicate dairy agribusinesses and catalyze an inclusive and sustainable development of the dairy value chain benefitting all value-chain actors.

The overall objective of the project is to pilot uptake of dairy technology packages through institutional approaches that involve inclusive agribusiness models for improved livelihoods of smallholders and environmental sustainability in Tanzania. We hypothesize that interventions involving empowered and appropriately skilled agri-entrepreneurs offer a promising avenue for enhanced uptake of profitable dairy technologies and services leading to increased smallholder competitiveness, household income and consumption of safe milk.

## The key research questions are:

- 1 - Under which conditions can market systems approaches involving empowered agribusinesses enhance uptake of technology packages as compared to direct project implementation?
- 2 - Under what conditions can women- and youth-led dairy agribusinesses enhance inclusivity of other women, men and young actors in the dairy value chain?
- 3 - Does agribusiness incubation/acceleration and/or their mentorship crowd in competitive and efficient agribusinesses lead to more competitive smallholder dairy farmers?
- 4 - Which technology packages deliver more impacts on productivity, income and household consumption of safe milk?

Note: The "conditions" in questions 1 and 2 include incentives, policy and institutional enablers for the uptake of technologies and innovations.

## The key assumptions that will be tested are:

- 1 - Inclusive agribusiness approach will enhance the uptake of technology packages.
- 2 - Incubation/acceleration/mentorship of agripreneurs will contribute to improved business performance.
- 3 - Integrated technology packages will contribute to increased productivity, income and consumption of safe milk.

## APPROACH

The project will apply market systems approaches in which empowered agribusinesses profit from enhanced uptake of technology packages and facilitate the inclusion of women- and youth-led dairy agribusinesses. The project will explore how agribusiness incubation and mentorship can bring together competitive and efficient agribusinesses potentially leading to more competitive smallholder dairy farmers that can identify and prepare to scale technology packages that deliver more impact on productivity, income and household consumption of safe milk. The project will collaborate with agribusiness development initiatives to support agribusiness skills development and embed proven dairy technologies in the portfolio of products and services they deliver. Gaps in capacity and knowledge to enhance uptake of dairy technologies and innovations will be identified and addressed.

## WHAT CONSTITUTES A “PACKAGE” OF TECHNOLOGIES AND INNOVATIONS?

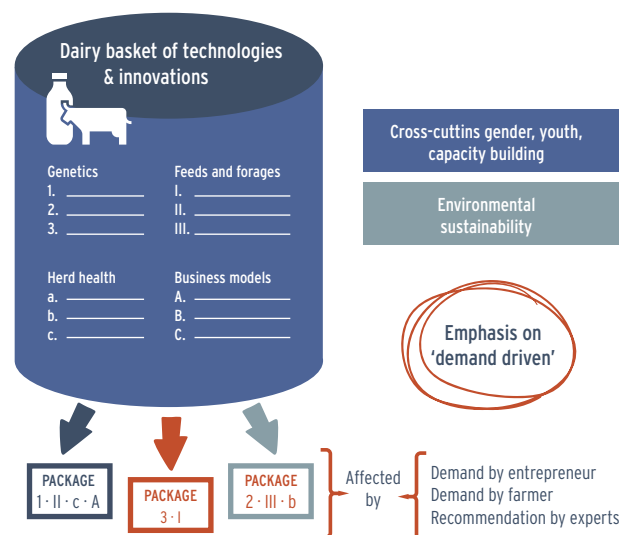
Dairy productivity depends on the ability to use appropriate breeds of animals that are healthy and well-fed. Therefore, intervention packages that bundle proven genetics, health and feeds technologies will be promoted within institutional arrangements that allow farmers to utilize and benefit from these bundles CGIAR and partners will provide in a “dairy basket”. The project is premised on technologies and innovations that have the potential to be profitably leveraged in various combinations by agribusinesses (depending on their demand and interest) as illustrated in **Figure 1**. These combinations are the packages that will be piloted to generate the evidence needed to attract investment to take the interventions to scale.

Each package targeting farmers (delivery) and agripreneurs (enabling) has three main elements:

- 1 - a set of technical products, innovations or interventions determined by target situations, outcomes and actors (typically anchored around feed, genetics or health products, market-oriented, with substantial “green” and “gender” elements);
- 2 - a set of institutional and delivery components that enable access to the technologies by target groups; and
- 3 - a set of actions to grow the technical and business capacities of the target actors to effectively take up and deliver the packages.

In addition, each package will have embedded advisory services that are usually difficult to sell separately. Such bundling of technical, institutional and knowledge components should enhance the demand for products and services offered by respective dairy agribusinesses to producers.

**FIGURE 1: Basket and packages of technologies and innovations**



## PRIORITY PACKAGES AND ROLES OF ACTORS IN DELIVERING THEM

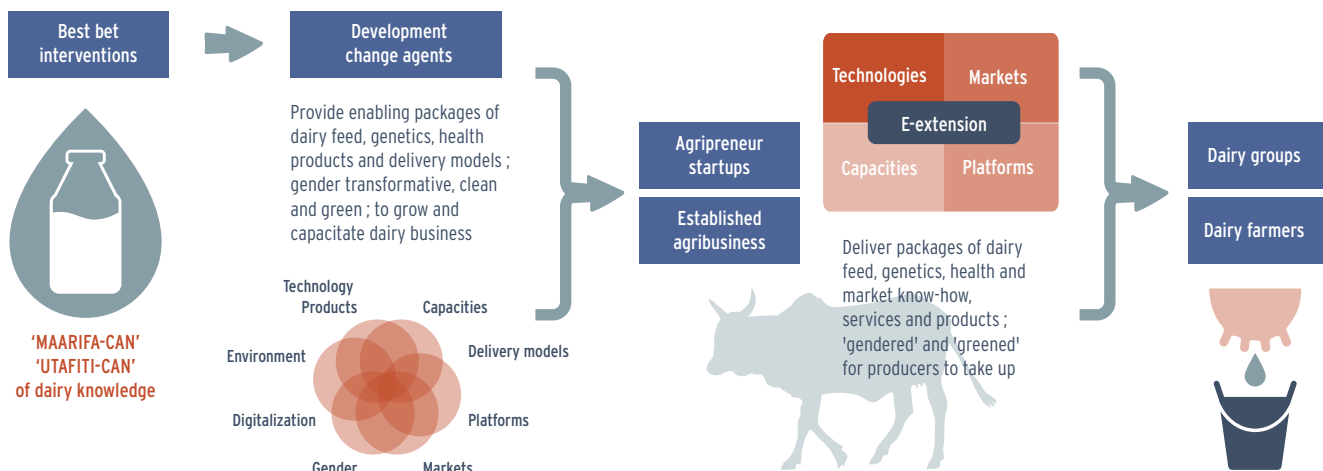
The project engaged agripreneurs, researchers, innovators, service providers and delivery organizations in a forum\* to prioritize best-bet technical and institutional innovations and supporting activities and turned them into integrated “package”. Following an interactive process, the technical products for the delivery packages to be leveraged by agribusiness targeting producers were identified as Brachiaria grass (or other forage options), manure management, East Coast fever vaccine, and artificial insemination. These will be delivered through capacitated agripreneurs and agribusinesses using digital platforms for farmer profiling and e-extension; and capacity development supporting market access, safer products and effective collective action.

To deliver these, various change agents and partners in the project will provide a set of associated custom-made enabling packages to the agripreneurs and agribusinesses. These will enable them to provide the services producers need, combining technical knowhow with clean, green and gender sensitive expertise, as well as business and soft skills necessary to be profitable.

Underpinning the packaging and delivery of these technologies and innovations by the agripreneurs and agribusinesses will be delivery/markets/platforms involving the agent network model and the dairy farmer assistant model. The related approach of dairy market hubs that is being championed by a potential partner will also be part of the delivery platforms.

More specific combinations of these priority innovations (and others) would be customized following further engagement with the agripreneurs e.g., during surveys. It is anticipated that several packages will emerge depending on specific agribusiness contexts as illustrated in **Figure 2**. For example, an agro-input supplier working with a network of artificial insemination service providers could end up with a package of artificial insemination technology, digital platform and agent network models, all embedded in a dairy business hub setup. Likewise, empowering agribusinesses with various capacities will depend on the knowledge/skill gaps and preferences of each target group.

FIGURE 2: Roles of actors in delivering priority packages of technologies and innovations



In addition, ex-ante evaluation of the interventions will be implemented using tools like participatory systems dynamics modelling (PSDM) and Comprehensive Livestock Environmental Assessment for Improved Nutrition, a Secured Environment and Sustainable Development along Livestock Value Chain (CLEANED) to inform decisions on policy and investment choices. The CLEANED tool will also be applied to evaluate the environmental impacts of the productivity enhancing technologies.

In pursuit of the implicit assumption that scaling has been inhibited by under investment or lack of bankable business cases for more public and/or private investments, this project will employ appropriate tools to re-evaluate the scaling readiness of some of the prioritized technologies parallelly with the piloting, particularly in relation to institutional and policy barriers. This assessment will help in preparing the scaling of technology packages that deliver impact on the livelihoods of smallholders and contribute to environmental sustainability in Tanzania.

## MAIN OUTCOMES

The project will assess and track various indicators towards achieving the following outcomes in the short-, medium- and long term under the following three strategies that underpin its theory of change (Figure 3):

### Strategy 1: Increasing capacity of agribusinesses with special focus on youth and women

- 1 - Increase financial support and literacy for agripreneurs
- 2 - Enhance technical and marketing skills of agripreneurs
- 3 - Improve agribusiness networks and institutions
- 4 - Increase agribusiness performance
- 5 - Improve commercial interaction and opportunities for agribusinesses

FIGURE 3: Theory of change/impact pathway changes over time

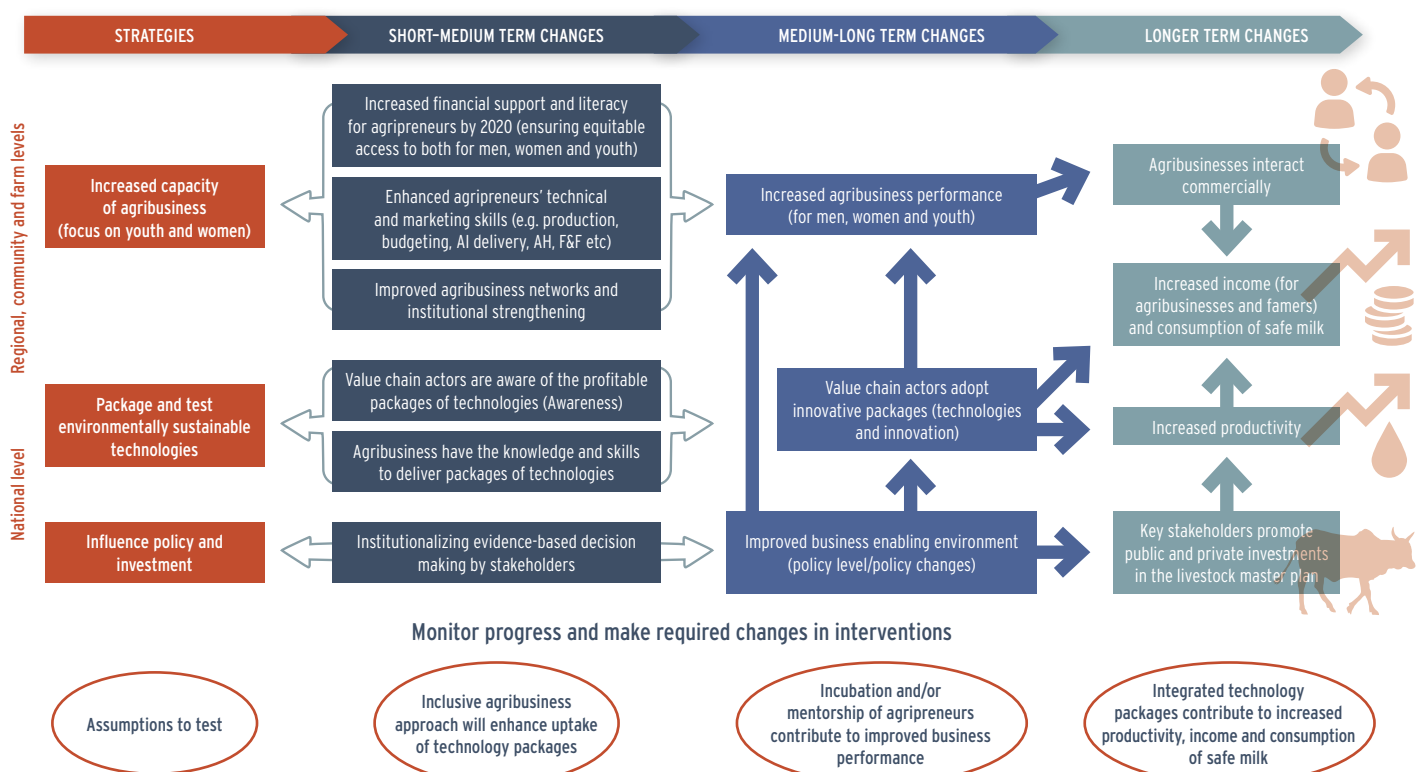




Photo credit: ILRI/Jules Mateo



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**TABLE 1: Selected regions and districts**

Region	Kilimanjaro	Tanga
Intervention districts	Hai, Siha	Korogwe and Muheza
Control districts	Moshi rural and Rombo are the control districts where the packages will not be delivered, but they have the potential for scaling.	
Partners implementing related dairy R&D activities	SNV, Match Maker Associates (MMA), Dairy Link Ltd., Capacity Building Organization (CABO), Kilimanjaro Dairy Cooperative Joint Enterprise (KDCJE), Land O Lakes Venture 37, National Artificial Insemination Center (NAIC) and Farm Radio International	Solidaridad, Land O Lakes Venture 37, Tanga Fresh, Tanzania Livestock Research Institute (TALIRI), Tanga Dairy Cooperative Union (TDCU), Netherlands Senior Experts (PUM), Dairy Link Ltd., Private Agricultural Support Sector (PASS) and Farm Radio International

## Strategy 2: Packaging and testing environmentally sustainable technologies

- 1 - Ensure agribusinesses have the knowledge and skills to deliver packages of technologies
- 2 - Work with value chain actors to adopt innovative packages (technologies and innovation)
- 3 - Increased productivity (impact)
- 4 - Increase income and safe milk consumption (impact)

## Strategy 3: Influencing policy and investment

- 1 - Institutionalize evidence-based decision making by stakeholders
- 2 - Improve enabling environments for business (policy level)
- 3 - Collaborate with key stakeholders to promote public and private investments in the livestock master plan and increase public-private investment in the dairy sector

## PROJECT SITES

To enable learning, contrasting sites reflecting a range of contexts and implications of agribusinesses and value chains

have been identified based on criteria such as cattle numbers by breed, milk flow, access to markets, potential for collective action and availability of related development activities ([Table 1](#) and [Figure 3](#)).

## PROGRAM PARTNERS

The program closely collaborates with national research partners—Sokoine University of Agriculture (SUA), Tanzania Livestock Research Institute (TALIRI) and the Tanzanian Dairy Board (TDB). It also works with local government authorities, various local and international NGOs and the private sector in smallholder dairy value chains. Various advanced research institutes have contributed to the program.

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This research was conducted as part of the CGIAR Research Program on Livestock and is supported by contributors to the CGIAR Trust Fund. CGIAR is a global research partnership for a food-secure future. Its science is carried out by 15 Research Centers in close collaboration with hundreds of partners across the globe. [www.cgiar.org/funders](http://www.cgiar.org/funders)